

WHAT IS CLAIMED IS:

1. A device for selectively accepting packets during a power failure, said device comprising:

an interface, said interface receiving a packet;
5 a packet inspection and assembly unit, said packet inspection and assembly unit examining said packet received from said interface; and
a packet buffering, processing and management unit, said packet buffering, processing and management unit selectively accepting packets in response to a power failure.

10

2. The device of Claim 1 further comprising a second interface, said second interface sending a packet to a subscriber client.

15

3. The device of Claim 2 further comprising a second packet inspection and assembly unit, said second packet inspection and assembly unit examining said packet sent to said second packet inspection and assembly unit by said second interface.

20

4. The device of Claim 1, wherein said packet buffering, processing and management unit accepts only voice packets.

5. The device of Claim 1, wherein said packet buffering, processing and management unit accepts only high priority packets.

25

6. The device of Claim 5, wherein said packet inspection and assembly unit determines high priority packets by examining the header of each packet received by said interface.

7. The device of Claim 5, wherein said packet inspection and assembly unit determines high priority packets by examining the contents of each packet received by said interface.

5 8. The device of Claim 2, wherein said packet buffering, processing and management unit accepts only high priority packets.

9. The device of Claim 8, wherein said second packet inspection and assembly unit determines high priority packets by examining the header of each 10 packet received by said second interface.

10. The device of Claim 8, wherein said second packet inspection and assembly unit determines high priority packets by examining the contents of each packet received by said second interface.

15 11. The device of Claim 5, wherein said high priority packet is define by one or more of a service level agreement, a quality of service metric, a bandwidth allocation, virtual local area network assignments, a class of service, and an Internet Protocol address.

20 12. The device of Claim 8, wherein said high priority packet is define by one or more of a service level agreement, a quality of service metric, a bandwidth allocation, virtual local area network assignments, a class of service, or an Internet Protocol address.

25 13. The device of Claim 1, wherein said subscriber client comprises one or more of a Internet Protocol telephony device, a wireless telephone, a plain old telephony system telephony device, a gateway device, a hub, a switch, a personal computer, a conventional television, a video converter, a set top box, or a router.

14. The device of Claim 1, wherein said packet buffering, processing and management unit selectively performs compression operations on packets.

15. The device of Claim 1, wherein said packet buffering, processing and 5 management unit sends a message indicating a power failure to a source of a rejected packet upon a power failure.

16. The device of Claim 1, wherein said packet buffering, processing and management unit sends a message indicating a power has been restored to a source of 10 a rejected packet which was previously sent a message indicating a power failure to said source of said rejected packet when said power failure occurred.

17. The device of Claim 1, wherein said packet buffering, processing and management unit accepts packets based, at least in part, upon a length of time of the 15 power failure.

18. The device of Claim 1, wherein said packet buffering, processing and management unit regulates bandwidth in response to a power failure.

20 19. The device of Claim 1, wherein said packet buffering, processing and management unit regulates packet compression in response to a power failure.

20. The device of Claim 1, wherein said packet buffering, processing and management unit regulates packet decompression in response to a power failure.

25

21. The device of Claim 1 further comprising a processor, said processor examining packets.

22. The device of Claim 1 further comprising a router.

23. The device of Claim 1, wherein said packet buffering, processing and management unit selectively stores packets in response to a power failure.

24. The device of Claim 1, wherein said packet buffering, processing and management unit selectively transmits packets in response to an absence of a power failure.

25. A device for selectively accepting packets during a power failure, said device comprising:

means for receiving a packet at an interface;

means for identifying information from said packet;

5 means for identifying available power sources for said packet transmission or reception;

means for determining whether to transmit or drop said packet; and

means for transmitting packets from said interface.

10 26. The device of Claim 25, wherein said information is contained in a header of said packet.

27. The device of Claim 25, wherein said power sources comprise at least one main power supply.

15

28. The device of Claim 25, wherein said power sources comprise at least one backup power supply.

29. The device of Claim 25, wherein said means for transmitting transmits
20 only voice packets.

30. The device of Claim 25, wherein said means for transmitting transmits only high priority packets.

25

31. The device of Claim 30, wherein said high priority packets are define by one or more of a service level agreement, a quality of service metric, a bandwidth allocation, virtual local area network assignments, a class of service, and a device address.

32. The device of Claim 31, wherein the device address comprises an Internet Protocol address.

33. The device of Claim 31, wherein the device address comprises an
5 Ethernet MAC address.

34. A computer program product for forwarding data across a communication network, said computer program product comprising:
computer code that inspects packets for information;
computer code that determines power source-related information;
5 computer code that uses said packet information and said power source-related information to make a determination for selectively accepting said packet; and
a computer-readable medium that stores said computer code.

10 35. The computer program product of Claim 34, wherein said computer-readable medium is one selected from the group consisting of a CD-ROM, a flash computer memory, a system memory, a floppy disk, a tape drive, a hard drive, and a data signal embodied in a carrier wave.

DOCKET
062891.0610

36. A device for selectively accepting packets during a power failure, said device comprising:

a network interface, said network interface receiving a packet traveling in a first direction;

5 a first packet inspection and assembly unit, said first packet inspection and assembly unit examining said packet received from said network interface;

a packet buffering, processing and management unit, said packet buffering, processing and management unit selectively accepting packets in response to a power failure;

10 a second interface, said second interface sending said packet to a subscriber client in a second direction; and

a second packet inspection and assembly unit, said second packet inspection and assembly unit sending said second interface said packet traveling in said first direction from said packet buffering, processing and management unit, and examining packets traveling in a second direction received from said second interface and passing said packets traveling in a second direction to said packet buffering, processing and management unit.

100 200 300 400 500 600 700 800 900 1000

37. A method of selectively accepting packets during a power failure, said method comprising:

receiving a packet;
examining said packet received; and

5 selectively accepting said packet based upon said examination of said packet received and available power sources.

38. The method of Claim 37, wherein said examining said packet received comprises examining a header of said packet.

10

39. The method of Claim 37, wherein said examining said packet received comprises examining contents of said packet.

15

40. The method of Claim 37, wherein selectively accepting said packet based upon said examination of said packet received comprises only accepting voice packets.

20

41. The method of Claim 37, wherein selectively accepting said packet based upon said examination of said packet received comprises only accepting high priority voice packets, said high priority packets being identified in said examination of said packet received.

25

42. The method of Claim 37, wherein selectively accepting said packet based upon said examination of said packet received comprises accepting packets based, at least in part, upon a length of time of said power failure.

43. The method of Claim 37 further comprising selectively performing compression operations on said packet.